



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,628	01/22/2007	Jean-Marie Basset	P08765US00/BAS	4254
881 7590 10/29/2010 STITES & HARBISON PLLC 1199 NORTH FAIRFAX STREET SUITE 900 ALEXANDRIA, VA 22314			EXAMINER LE, HOA T	
			ART UNIT 1788	PAPER NUMBER
			NOTIFICATION DATE 10/20/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

iplaw@stites.com

### Office Action Summary

**Application No.**

10/550,628

**Applicant(s)**

BASSET ET AL.

**Examiner**

H. (Holly) T. Le

**Art Unit**

1787

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 July 2010.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-34 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### *Response to Arguments*

2. **Claims 1, 2, 4, 5, 8, 9, 16-19, 22, 24, 25, 28, and 29 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,229,060 ("Vidal") as set forth in the last office action and further discussed below.**

2.1. Applicant argued that "Vidal only expressly discloses the grafting of tantalum or tungsten hydride onto silica [citing examples 4 and 6], and does not specifically teach or suggest a compound comprised of the specific combination of tungsten hydride grafted onto an aluminum oxide support. Applicant, however, cites "tantalum, tungsten or chromium hydrides grafted to silica or silica-alumina are more particularly recommended (Vidal, col. 3, line 66 to col. 4, line 6). Here, there are only 9 possible combinations of metal hydrides and the supports, one of which is tungsten hydride grafted onto silica-alumina support. Thus, the specific tungsten hydride over alumina-based (i.e. silica-alumina) support as claimed is at once envisaged and anticipated.

In addition, Applicant does concede that "silica, alumina, silica-alumina or niobium oxide and zeolites" are named as "preferred" substrates. It has been held that when the compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, e.g., select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can be found if the classes of substituents

are sufficiently limited or well delineated. If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated. Ex parte A, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990). Here, the list for the support includes only five materials, one of which is alumina, and there are only three metal hydrides as grafting materials to choose from. So the list of supports and grafting materials is sufficiently limited that one ordinary skill in the art would be able to at once envisage the specific catalyst comprising tungsten hydride grafted onto alumina support. Therefore, the instant claims are anticipated.

2.2. Applicant further contended that "Vidal also includes no teaching or suggestion that a combination of an aluminum oxide support and tungsten hydride should even be produced and/or would be able to function as a catalyst." Vidal clearly states that "Among these catalysts, tantalum, tungsten or chromium hydrides grafted to silica or silica-alumina are more particularly recommended" (col. 4, lines 4-6)". Silica-alumina support satisfies the claimed "support based on aluminum oxide" or "support comprises aluminum oxide". Therefore, contrary to Applicant's argument, a catalyst comprising an alumina-based support and tungsten hydride is expressly taught. Furthermore, Vidal also teaches "a solid catalyst comprising a metal hydride grated to and dispersed over a solid oxide" (column 2, lines 13-16); and states: "The catalysts according to the invention exhibit ... very good dispersion of the metal over the solid oxide..." (col. 3, lines 50-53) and "mention may preferably be made, among the supports of oxide type, of silica, alumina, silicas-aluminas or niobium oxide, zeolites, without the list being limiting. Among these catalysts, tantalum, tungsten or chromium hydrides grafted to silica or

silica-alumina are more particularly recommended" (col. 3, line 66 to col. 4, line 6).

From these statements, it is clear that a combination of an oxide support, including just alumina or alumina-based, with a metal hydride, including tungsten hydride, that functions as a catalyst is clearly delineated.

2.3. Applicant further argued that because Vidal shows the yields of tungsten hydride-grafted silica support were lower than those with the tantalum hydride-grafted silica support, Vidal not only teaches away from alumina as a support but also tungsten hydride as a grafted metal. Arguments that the alleged anticipatory prior art teaches away from the invention' are 'not germane' to a rejection under section 102." *Twin Disc, Inc. v. United States*, 231 USPQ 417, 424 (Cl. Ct. 1986) (quoting *In re Self*, 671 F.2d 1344, 213 USPQ 1, 7 (CCPA 1982)). See also *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1068, 68 USPQ2d 1481, 1488 (Fed. Cir. 2003). A reference is no less anticipatory if, after disclosing the invention, the reference then disparages it. The question whether a reference "teaches away" from the invention is inapplicable to an anticipation analysis. *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998). Here, the rejection is under the anticipation analysis, so whether Vidal teaches away from the claimed invention is irrelevant.

**3. Claims 26-34 are rejected under 35 U.S.C. §103(a) as being unpatentable over Vidal in combination with either U.S. Patent No. 7,220,888 ("Vanoppen") or**

**U.S. Patent No. 6,469,225 ("Basset") as set forth in the last office action and further discussed below.**

Applicant continued to argue that Vidal does not teach or suggest a specific combination of tungsten hydride grafted onto an aluminum oxide support as claimed. Vidal clearly states "tantalum, tungsten or chromium hydrides grafted to silica or silica-alumina are more particularly recommended." (Vidal, col. 3, line 66 to col. 4, line 6). Here, there are only 9 possible combinations of metal hydrides and the supports, one of which is tungsten hydride grafted onto silica-alumina support. Thus, the specific tungsten hydride over alumina-based (i.e. silica-alumina) support as claimed is at once envisaged by one of ordinary skill in the art.

**4. Claims 3, 5, 6, 7, 9-15, 20, 21, and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Vidal in view of U.S. Patent No. 4,085,067 ("Pollitzer") as set forth in the last office action and further discussed below.**

Applicant continued to argue that Vidal does not teach or suggest a specific combination of tungsten hydride grafted onto an aluminum oxide support as claimed. Vidal clearly states "tantalum, tungsten or chromium hydrides grafted to silica or silica-alumina are more particularly recommended." (Vidal, col. 3, line 66 to col. 4, line 6). Here, there are only 9 possible combinations of metal hydrides and the supports, one of which is tungsten hydride grafted onto silica-alumina support. Thus, the specific tungsten hydride over alumina-based (i.e. silica-alumina) support as claimed is at once envisaged by one of ordinary skill in the art.

5. Applicant's arguments filed July 26, 2010 have been fully considered but they are not persuasive for the reasons set forth in sections 2-4 above.

***Double Patenting***

6. Claims 1-21 and 26-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of U.S. Patent No. 7,638,672 ("US'672") as set forth in the prior office actions and further discussed herein. Applicant made no arguments to this rejection but did not file a terminal disclaimer. Therefore, the rejection is hereby maintained.

***Terminal Disclaimer***

7. The terminal disclaimer filed on July 26, 2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent No. 7,635,794 has been reviewed and is accepted. The terminal disclaimer has been recorded. The double patenting rejection over US 7,635,794 is hereby withdrawn.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. (Holly) T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 12:30 p.m. to 9:00 p.m. (EST), Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. (Holly) T. Le/  
Primary Examiner, Art Unit 1787

October 8, 2010